

The impact of the achievement of coordination and integration between the intellectual capital and the development of human resources

An applied Study in the AL furat al awssat Technical University

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**أثر تحقيق التنسيق والتكامل بين رأس المال الفكري وتنمية الموارد
البشرية - دراسة تطبيقية في جامعة الفرات الأوسط التقنية**

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ABSTRACT:-

This study aims to identify the analysis of the impact of the intellectual capital in development of the Human Resources at the business organizations: An applied study in the Middle Euphrates Technical University in Iraq. The study population consisted of all employees in the Middle Euphrates Technical University, and was chosen as a random sample of (100) employees, after that the researchers were distributed a questionnaire study for them. The study findings a number of results, including:

- a. The descriptive analysis results showed that the evaluation of the employees for the intellectual capital and the Human Resources dimensions at Middle Euphrates Technical University which are (Administrative development, support and the self-encouragement, and empowering of employees) were the (high) degree for all the dimensions and the intellectual capital.
- b. The results showed that there exist statistically significant impact at the significance level ($\alpha = 0.05$), for the intellectual capital in development of the Human Resources dimensions together at the business organizations.

The study concluded that a number of the recommendations and conclusions.

Keywords: Intellectual capital, Human resources, Administrative development, Empowering of employees, Competitive superiority.

المخلص:

تهدف هذه الدراسة إلى التعرف على تحليل أثر رأس المال الفكري في تنمية الموارد البشرية في منظمات الأعمال: دراسة تطبيقية في جامعة الفرات الأوسط التقنية في العراق. تكون مجتمع الدراسة من جميع العاملين في الجامعة التقنية للفرات الأوسط، وتم اختيارهم كعينة عشوائية قوامها (100) موظف، وبعد ذلك وزع الباحثون استبانة الدراسة عليهم. توصلت الدراسة إلى عدد من النتائج منها:

- أ. أظهرت نتائج التحليل الوصفي أن تقييم العاملين لرأس المال الفكري وأبعاد الموارد البشرية في الجامعة التقنية للفرات الأوسط وهي (التطوير الإداري، الدعم والتشجيع الذاتي، و تمكين الموظفين) كانت الدرجة (عالية) لجميع الأبعاد ورأس المال الفكري
- ب. وأظهرت النتائج وجود أثر ذي دلالة إحصائية عند مستوى الدلالة ($\alpha = 0.05$) لرأس المال الفكري في تنمية أبعاد الموارد البشرية معاً في منظمات الأعمال. وخلصت الدراسة إلى عدد من التوصيات والاستنتاجات.

الكلمات المفتاحية: رأس المال الفكري، الموارد البشرية، التطوير الإداري، تمكين الموظفين، التفوق التنافسي.

1. INTRODUCTION

This study was to demonstrate how organizations can achieve a competitive advantage by investing in development of human resources, and the Administration adopted a lot of organizations on the principle of interest to individuals working as one of the powerful influences that are given special competitive advantage with the entry of the twenty first century which focuses on the knowledge economy, and considers the productivity of the human capital or intellectual capital, is the main pillar in prolonging survival of any successful organization make a profit in the market, and the foundation of any successful economy in the world. And it became the driving force of those organizations are individuals with knowledge and intelligence and skills that fit with requirements of the current century.

For the business organizations and organizations of the public administration that the study gives them extensive information about the importance of the human resources in the organization and on the investment of these resources in an optimal way to achieve a competitive advantage in the market, in order to be a motivation a greater effort to be made to take advantage of this information on the ground and conditioning their circumstances and resources in order to achieve the benefits of investment of the organization in their human resources, which came in this study.

2. METHODOLOGY

2.1. The Study Problem and its Questions

We can say that to look at preparation and qualification of the human resources in light of emergence of the intellectual capital concept have to shift to strategically toward the perception of them as one of most important sources of investment that can be explored and monitoring its components and exported. The study problem can be summarized in the following question:

Do you contribute the intellectual capital in the development of the human resources in the organization being studied?

This question leads us in turn to put forward the following sub-questions:

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- a. Is there clear perception of the study sample in evaluation of the intellectual capital of the organization being studied?
- b. What the evaluation level of the dimensions of human resource development from the perspective of the employees in the organization being studied?
- c. Is there a significant impact of the intellectual capital in the development of human resources in the organization being studied?

2.2. The Study Importance

From the importance of the subject and its vitality, the knowledge became available to the organization as a competitive advantage, distinguishes them from other organizations, and it represented in the availability of individuals whom have epistemological information. We discussed this and come to focus on this role and to highlight the importance of some ways to move forward in the development and adoption of the individuals working with expertise and competencies and not to stop at a certain point of care. And is embodied the study importance in the following points:

- a. The study gaining its importance from the status of the variables that are working to deal with them in severe competitive business environment.
- b. The importance highlights through the results of a field of the study in the **Middle Euphrates Technical University** because of its prominent role in generation of the cognitive experiences.
- c. Has been and continues and will remain the subject of the human resources of the most important and urgent themes for strategic planners and administrators practitioners at the level of administrative organizations or the communities.

2.3. The Study Objectives

The study aims to achieve the following:

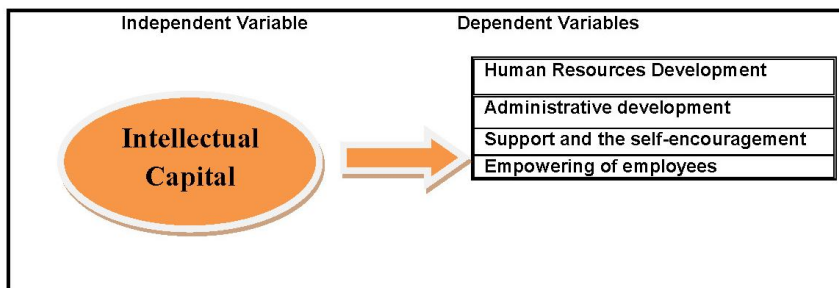
- a. To identify the intellectual capital concept and most important of its characteristics and components.
- b. To draw attention to a special category of the human resources underpinning the mostly growth and prosperity of

the organizations and the communities. This category has the experience, knowledge and the creative ability thus making its development and its investment and conservation is required under the severe competition for the qualified human resources.

- c. To identify the human resource management concept as one of the vital areas of the business management through:
 - 1. Desire for academic specialization in the field of human resources and particularly in the human resource development in the organization under study.
 - 2. Crystallize theoretical framework that includes the most important basic vocabulary of the intellectual capital concept from the perspective strategic and its main components and its relationship to the development of the human resources.
- d. Analyzing the impact of the intellectual capital in development of the human resources in the organization under study.

2.4. The Study Model

In light of the study objectives were constructing the study model in order to measure the impact of the intellectual capital in development of the human resources in the organization under study. As shown in the following figure No. 1:



Source: Prepared by the researcher.

Figure 1: The Study Model

2.5. The Study Hypotheses

The study attempts to test the main hypothesis and three sub-hypotheses as a null form (H_0), as follows:

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H₀: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for the **intellectual capital** in development of the human resources at the General Directorate of the **Middle Euphrates Technical University** The study hypothesis is divided to the following sub-hypotheses:

H₀₁: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for the intellectual capital in the **Middle Euphrates Technical University**

H₀₂: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for the intellectual capital in **support and the self-encouragement** at the **Middle Euphrates Technical University**.

H₀₃: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for the intellectual capital in **empowering of the employees** at the **Middle Euphrates Technical University**.

3. THEORETICAL FRAMEWORK AND PREVIOUS STUDIEDS

3.1. The Theoretical Framework

This section includes a theoretical framework related to the intellectual capital and the human resources development, as follows:

3.1.1. The Intellectual Capital Concept

Belief was until recently that the wealth of nations consist only of the tangible physical assets such as the lands and buildings or equipment, it was not paid any attention to the impact of the human element in the composition of wealth. But to enter the era of the technology and knowledge of the human element become is the real influential in the success of the institutions and the communities, and changed the traditional economic concepts and began to emerge a new economic concepts based on the knowledge.

It is recognized that the intellectual capital played a major role in the business organizations in the modern economies, especially since the beginning of the nineties of the last century, where you cannot for any organization in any sector was of any size was to achieve the competitive advantage without it and that is the focal

point after the capital was (represented by cash and the fixed assets) is the most important components of the companies and the community, but now it has replaced the natural resources, cash, and the fixed assets of the intellectual capital, which is the more expensive assets of the companies. (Al-Mafraji, 2003: 18).

3.1.2. The Intellectual Capital Definition

Been received a number of definitions in the administrative literature, among them the following:

The intellectual capital is defined as the (useful knowledge that can be used and invested correctly in favor of the organization) (Al-Enzi., 2001: 76).

Also, the intellectual capital is defined as: a group of individuals who use their brains more than using their hands because they have the expertise, values, culture, ability to innovate and creativity in order to find a specialist solution or create value ... etc., (Chen, 2004: 199).

And defined as a high intellectual capacity and the quality knowledge owned by the individuals in the organization, which enables them to the intellectual contributions in completion and success of the organization tasks and its development (Koutaiba, 2006: 52) .

Also, the OECD organization defined as: that the economic value for two categories of the intangible assets are the organizational capital (structural) and the human capital (OECD, 1999: 43) .

Also, the intellectual capital is broadly defined. Foundational definitions have included the following: “the profits which accrue from membership in a group that are the basis of the solidarity which makes them possible” , “the number of people who can be expected to provide support and resources” , “norms and networks that facilitate collective action” and “friends, colleagues, and more general contacts through whom you receive opportunities to use financial and human capital”. More generally, defines intellectual capital as “the set of elements of the social structure that affects relations among people and are inputs or arguments of the production and/or utility function. (Jeong , 2019 : 129)

The intellectual capital is defined as "the sum of the realized and expected resources that are associated with the ownership of a network of everlasting relationships that are less or more regulating knowledge and exploring mutual knowledge, in other words, belonging to a group." Including intellectual capital in relation to "it consists of the social relations available to the person or group and used for the purpose of accessing resources that are employed in economic operations, including quantitative and qualitative resources, because it manifests itself in relations between individuals and between groups and is also manifested in social resources as a special and important part of Its composition. (Amina , 2017 : 5) .

The researcher see in light of the above definitions, that the intellectual capital is the mentality ability of a certain class of the human resources represented in the efficiency capable of generating the ideas related to the development of creative and strategic for systems, activities, and operations in order to ensure the organization of high development for its human resources.

3.1.3. Importance of the intellectual capital

The successful organizations are those that are to attract, selection and development of the individual employees who can its leadership, which is interested by customers and their needs and desires, and exploit the opportunities for the different technologies in the surrounding environment, so the main challenge in front of her the day is to ensure the availability of the individuals skilled and distinguished, and training and development them and their skills development (Kanter, 1999: 4).

Is worth be noted that the human capital - as one of the intellectual capital elements - more important than any of the other physical assets owned by the organizations, which means necessity of providing appropriate information on the human resources available to enables the management of those organizations of good use, and the subject of the intellectual capital, as a main themes of the human resources, which focuses on a specific category of the staff persons whom own the special knowledge and skills, today is subject alive for the researchers and the practitioners alike, (Kurdy, 2010: 43).

3.1.4. Characteristics of the intellectual capital

The intellectual capital configurable in the organization is the result of sequentially and complex processes that require investments and long periods of time to their composition. If some the intellectual skills can be depolarized are directly from the labor market or the external environment, the organization also need to makes these knowledge as inputs taking place by the appropriate conversion processes in order to become an individual and an organizational knowledge that the organization is based upon to create the accumulation of knowledge the form of great importance of basic capabilities to configure the important aspect of the capital which is intangible capital.

It is known that this is not easy work on the human resources management in the organization and that it was keen and so for unique characteristics of knowledge and the knowledge capital that distinguish it from other of the assets or the resources in the enterprise. Perhaps the most important of these characteristics as follows (Wiig, 1997: 34):

1. It is not a tangible capital.
2. Difficult to measure accurately.
3. Ephemeral and loss.
4. Increasing by usage.
5. Can benefit from it in various stages and processes at the same time.
6. Is embodied in the people are willing to carry.
7. Has a significant impact on the organization.
8. The intellectual capital characterized by high perseverance and efforts in action with high confidence by self at the same time not neglect the ideas and experiences of others.
9. The intellectual capital desired to stability in the work, performance thought, planning, organization and leadership.
10. The intellectual Capital focuses on the training, organization, experience also depends on the intuition and foresight that to acquire skills and practical experiences.

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11. The intellectual capital distributed on the different strategic levels and varying degrees.

In light of the foregoing, the researcher sees with all the facing of the organization of many problems and difficulties, and for the purpose composition of intellectual capital based on the their competitiveness, that the leading organizations overcome these difficulties by multiple ways and methods comes in the forefront of be regarded the intellectual capital as critical subject and strategic acquires on special interest by the senior management in the organization, and the development of these organizations are private measures for measuring the efficiency of the investment in the intellectual capital as an investment with long-term payoff and has a totalitarian effect.

3.1.5. Components of the intellectual capital

Of the main tasks of the knowledge management is to identify, measure and evaluate the intellectual capital of the organization. And being returns to its impact on the success or failure of the organization, which rapidly reflected in the market value of the organization, and that aspect of this interest manifested in its components and potentials.

The following are some models from classifications and components of the intellectual capital:

a. Classification of Goran Roos (2003):

The components of the intellectual capital in accordance with this model are (www.euintangibles.net):

1. Human Resources.
2. Organizational resources.
3. Resources associated with the relations.

b. Classification of Thomas Stewart (2004):

1. Human capital.
2. Structural capital.
3. Customer capital.

c. Classification of Morr & et al. (2004):

1. Human Resources.
2. Relations resources (market assets).
3. The infrastructure.
4. Individual ownership.

d. Classification of Merten and Der Meer (2005):

1. Human capital.
2. Structural capital.
3. Relations capital.

Perhaps the partition submitted by Thomas Stewart (2004) for the intellectual capital is the nearest to the benefit, Stewart identifies three components for the intellectual capital are as follows (Abed As-Sattar, 2005: 8):

As a brief preview , the seven different types of intellectual capital that I distinguish are: (Jackson , 2019 : 4)

- Information Capital: the ability to acquire valuable information and/or to spread it to other people who can use it through social connections.
- Brokerage Capital : being in a position to serve as an intermediary between others who wish to interact or transact.
- Coordination and Leadership Capital: being connected to others who do not interact with each other, and having the ability to coordinate others' behaviors.
- Bridging Capital: being an exclusive connector between otherwise disparate groups with an ability to acquire, as well as control the flow of, valuable information.
- Favor Capital: the ability to exchange favors and safely transact with others through a combination of network position and repeated interaction and reciprocation.
- Reputation Capital: having others believe that a person or organization is reliable and/or provides consistently high quality advice, information, labor, goods, or services.
- Community Capital: the ability to sustain cooperative (aggregate social-welfare- maximizing) behavior in the running

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of institutions, the provision of public goods, the handling of commons, and/or collective action, within a community

3.2. The Previous Studies

- Study of **(Al-Ajlouni, 2011)**, entitled: impact of human resources development on maximize the value of human capital.

The study addressed the importance of the human element in achieving the objectives of the organizations, and the need for attention to raise the employees level and investment their abilities. And the study concluded to necessity of greatest attention to the human element.

- Study of **(Michel, 2007)**, entitled: Developing the Competitive Advantage through the Knowledge Management And Intellectual Capital.

The study aimed to demonstrate the impact of the intellectual capital as an influential a competitive force in the performance of the institutional companies. Which addressed a model of the companies operating in the Middle East to test of the five factors linking the performance of the institutional companies by the knowledge management, and these factors are: knowledge of the human element and its growth, market information, strategic alliances, the flow of knowledge to make the decision, and informatics. The study found that all these factors are suitable and suggests be adopted to improve the institutional and cognitive performance of the company, and the knowledge of the human element and development of and strategic alliances and the flow of the knowledge to make the decision are the most important conditions of the institutional performance success at various levels.

- Study of **(Aino, 2005)**, entitled: How to Generate Intellectual Capital.

The study aimed to that it must deal with the knowledge element of as an important asset and to identify its importance in the institutional control operations for companies and must be to focus on because it is one of the most important elements to achieving the governance objectives of the companies. And was a highlight results of this study that the companies must possess this unique element

that ensures the competitive advantage in the financial markets, as well as to be understood how renovated in every time and place, and to explain the special strategies in order to contribute to the achievement of the Corporate Governance objectives.

- Study of **(Singapore, 2004)**, entitled: Concept of Intellectual Capital.

The study aimed to spread the knowledge related to the subject of corporate governance and the intellectual capital. The study found that on the companies working on establishment of an effective network and dedicated to establishing a framework of efficient advanced knowledge in both governance and renewal procedures required in the concept of intellectual capital.

- Study of **(Kate & Estelle, 2004)**, entitled: Importance of the Intellectual Capital.

The study aimed to provide and highlight the importance of the intellectual capital as the creator of the company value as well as explain how its contribution to process of evaluating and measuring the special system of the company. The study found a number of recommendations, the most important of which: emphasis on the importance of the internal audit when evaluating and measuring the intellectual capital for companies, and explain the extent of impact of the intellectual capital as an important tool to measure and evaluation of the special value to any organization.

- Study of **(Skyrme, 2003)**, entitled: Samples to measure the intellectual capital.

The study aimed to statement of the growing interest by ways to measure the intellectual capital where the balance sheets of companies show a partial idea of the real situation, and they sometimes contain a misleading data, so need to efficient and necessary measures of in order to get to know the real value of the companies and this represents the visions of the Corporate Governance of companies used for the intellectual capital. The study found several recommendations, one of the most important: the companies management should be on a sufficient knowledge of impact of the intellectual capital as a resource that is tangible, so it may faced with lack of accuracy in the measurement and disclosure

process with him and this is something that might affect the provisions of the internal and external auditors, so it should be there is a measurement model that takes into account the legal and accounting matters as to how the reporting and disclosure.

4. METHOD AND PROCEDURES

4.1. The Study Approach

Based on the study objectives, the researcher adopted a descriptive approach to describe the study sample responses and their estimates about the study variables. Also, the study used the analytical approach to measure the impact of the intellectual capital in development of the Human Resources at the business organizations.

4.2. The Study Population and its Sample

The study population consists of all employees whom are working at the **Middle Euphrates Technical University**. And the study sample consists of (120) employees, selected according to stratified random sample method. After that the researcher distributed (120) questionnaire on the study sample, were returned (113) questionnaire, where the percentage of questionnaires returned is (94%), and after review and audit questionnaires returned, were excluded (13) questionnaires for not expire because of lack of the information contained in each, and thus the number of valid questionnaires for statistical analysis (100) questionnaire.

4.3. The Study Tool

To achieve the study objectives, the researcher prepares and develops a study tool based on the administrative literature and previous studies related to the intellectual capital and the Human Resources development. It was the adoption of a scale to measure the study variables are divided into three levels, where the calculated cut-off grade by dividing the difference between the highest value of the likert scale (5) and the lowest value in it (1) at three levels, namely that the cut-off grade is $\{(1-5 / 3 = 1.33\}$. And thus the three levels as follows:

- a. Low applying: (1-2.33).
- b. Medium applying: (2.34-3.67).
- c. High applying: (3.68-5).

After that was measured the tool sincerity and its reliability, as follows:

a. Tool Sincerity

Has been verified the Face Validity of the questionnaire, and through the presentation to a group of arbitrators with expertise and knowledge from teaching faculty members at Technical Institute – Kufa, in the terms of reference of administrative sciences, scientific research methodology, and was the aim of the arbitration verify the extent of items belonging to the study variables, an appropriate degree of drafting items Linguistically, where been modification reworded drafting some of items. The questionnaire included in its final form on (20) items for independent and dependent variables. The researcher used Likert scale in measuring the study sample responses.

b. Tool Reliability

To check the questionnaire reliability, the stability coefficient was calculated for the tool (the internal consistency of the questionnaire items) using coefficient (Cronbach's Alpha) coefficient, and the reliability coefficient for the overall tool is (0.947), as shown in Table (1) the following:

Table 1. Results of reliability (Internal Consistency of the items)

The Variables	N	Cronbach's Alpha	Stability Ratio
Intellectual capital	5	0.869	%86.9
Administrative development	5	0.846	%84.6
Support and the self-encouragement	5	0.807	%80.7
Empowering of the employees	5	0.835	%83.5
Overall Tool	20	0.947	%94.7

The Cronbach's Alpha coefficients values are statistically acceptable especially in the administrative, behavioral, and educational researches when these values are within the range (0.60-0.75)(Al-Chalabi, 2007: 47).

4.4. The study limits

a. The Spatial Limits: The spatial limits of the study represented by the **Middle Euphrates Technical University**

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b. The Temporal Limits: The temporal limits of the study extends for the period (01/07/2019 - 31/12/2019).

c. The Human Limits: The study depend on the trainees of the **Middle Euphrates Technical University**

4.5. The Statistical Methods

After that was finished of the emptying the data in the computer, were used some statistical descriptive and analytical methods, which its available in the Statistical Package for Social Sciences (SPSS). So the statistical methods that were used for the purposes of the statistical analysis of data are:

- a. Means and Standard Deviations.
- b. Cronbach's Alpha Coefficient.
- c. Simple linear regression.

5. RESULTS AND DISCUSSION

This section devoted to present the results of statistical analysis of the data subjects' responses of the study sample, which was reached through the use of Statistical Package for Social Sciences (SPSS), in order to answer the study question and test the hypotheses.

5.1. Results related to 1st question

What the evaluation level of the intellectual capital at the General Directorate of the **Middle Euphrates Technical University** in Iraq from the perspective of employees?

To answer the 1st question, it has been calculated the means and standard deviations to estimate the employees responses on each item of the intellectual capital variable. Table (2), refers to the results of the employees responses at the **Middle Euphrates Technical University**,

about the evaluation level of the intellectual capital and its items:

Table 2. Means and standard deviations for the intellectual capital and its items

No	Items	Mean	Std. Dev.	Rank	Evaluation level
1	The intellectual capital embodied	3.84	0.73	2	High

	through the human resource development in our organization.				
2	Our organization seeks to interest in the intellectual capital and considered administrative and political strategy.	3.72	0.72	4	High
3	The organization seeks to take the side of appropriate incentives for the individuals at the new initiatives and a variety of ideas.	3.87	0.79	1	High
4	Management of organizations looking at the individuals working that they are extremely important part of where they are representing assets and not cost.	3.70	0.73	5	High
5	The spending is considered on the development of the individual skills is part of the spending on capital development.	3.75	0.74	3	High
-	Intellectual capital	3.77	0.60	-	High

The results in Table (2), indicates to the means of the intellectual capital items equals to (3.84, 3.72, 3.87, 3.70, 3.75) respectively, and all means larger than the test criteria (3) of (5) on (Likert Scale). These results indicate to possession of the employees at the **Middle Euphrates Technical University**, a clear vision about the importance of these items, which indicates that the evaluation was (positive), and this means that the **Middle Euphrates Technical University** applying the mentioned items, with (High) degree from the perspective of the employees.

5.2. Results related to 2nd question

What the evaluation level of the HR development dimensions at the **Middle Euphrates Technical University** in Iraq from the perspective of employees?

To answer the 2nd question, it has been calculated the means and standard deviations to estimate the employees responses on each dimension of the Human Resources development variable. Table (3), refers to the results of the employees responses the **Middle Euphrates Technical University**, about the evaluation level of the Human Resources development and its dimensions:

Table 3. Means and standard deviations for the HR development dimensions

No.	HR development Dimensions	Mean	Std. Dev.	Rank	Evaluation level
1	Administrative development	3.84	0.54	1	High
2	Support and the self-encouragement	3.74	0.57	3	High
3	Empowering of employees	3.76	0.56	2	High
-	HR development	3.78	0.53	-	High

The results in Table (3), indicates to the means of the Human Resources development dimensions which are (administrative development, support and the self-encouragement, and empowering of employees), equals to (3.84, 3.74, 3.76) respectively, and all means larger than the test criteria (3) of (5) on (Likert Scale). These results indicate to possession of the **Middle Euphrates Technical University**, a clear vision about the importance of these dimensions, which indicates that the evaluation was (positive), and this means that the **Middle Euphrates Technical University** applying the mentioned dimensions, with (High) degree from the perspective of the employees.

In light of the above, these results reflect the extent of contribution of the human resources development indicators in achievement of the intellectual capital, also the results of the analysis confirms the convergence of the study sample response about sub-variables for the development of the human resource, and the study sample response came about to these variables according to their relative importance.

5.3. Results related to test the study hypothesis & its sub-hypotheses

5.3.1. Test the study hypothesis

H₀: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for the **intellectual capital** in development of the human resources at the General Directorate of the **Middle Euphrates Technical University**.

In order to test the validity of the hypothesis was used the Simple linear regression analysis. As shown in the following Table (4):

Table 4. Results of the Simple linear regression analysis to measure the impact of the intellectual capital in development of the human resources

Independent Variable	Coefficients (β)	Std. Error	Value of (t)	Sig.
Constant (β_0)	1.181	0.211	5.606	0.000
Intellectual capital	0.688	0.055	12.490	0.000
Correlation Coefficient (R) = 0.784		Determination Coefficient (R ²) = 0.614		
Value of (F) = 155.993		Sig. of (F) = 0.000		

The results in Table (4) show that:

- a. Validity of multiple linear regression is proven, this is supported by the value of calculated (F) which is (155.993) and that the (Sig.) equals to (0.000) is less than the significant level ($\alpha = 0.05$).
- b. The statistical significant of regression coefficients (β) for the **intellectual capital** is proven, therefore, there exist statistically significant impact at the significant level ($\alpha = 0.05$) for the intellectual capital in **development of the human resources** at the **Middle Euphrates Technical University**. Depend upon the (Sig.), and the value less than the significant level ($\alpha = 0.05$). This means that the null hypothesis (H_0) was **rejected** and (H_1) was **accepted**.
- c. The value of Determination coefficient (R^2) which is equal to (0.614) shows that the internal variable in the regression model (intellectual capital) interprets (61.4%) of variations that happen in the (development of the human resources) at the **Middle Euphrates Technical University**.

After the completion of test the study hypothesis and was verified the existence of impact for the intellectual capital, in development of the human resources, which should test the impact of the intellectual capital in each dimension of the development of the human resources separately, as follows:

5.3.2. Test the 1st sub-hypothesis

H_{01} : There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for the intellectual capital in the **administrative**

development at the General Directorate of the **Middle Euphrates Technical University**

In order to test the validity of the 1st sub-hypothesis was used the simple linear regression analysis. As shown in table (5) below:

Table 5. Results of simple linear regression analysis to measure the impact of the intellectual capital in the administrative development

Independent Variable	Coefficients (β)	Std. Error	Value of (t)	Sig.
Constant (β_0)	1.370	0.267	5.130	0.000
Intellectual capital	0.655	0.070	9.371	0.000
Correlation Coefficient (R) = 0.687		Determination Coefficient (R ²) = 0.473		
Value of (F) = 87.812		Sig. of (F) = 0.000		

The results in table (5) show that:

- Validity of simple linear regression is proven, this is asserted by the calculated value (F) (87.812), and that the significance value (0.000) is less than the significance level ($\alpha = 0.05$).
- The statistical significant of regression coefficients (β) for the **intellectual capital** is proven, therefore, there exist statistically significant impact at the significant level ($\alpha = 0.05$) for the intellectual capital in the **administrative development** at the **Middle Euphrates Technical University**. Depend upon the (Sig.), and the value less than the significant level ($\alpha = 0.05$). This means that the null hypothesis (H_{01}) was **rejected** and (H_{11}) was **accepted**.
- The value of (R^2) which is equal to (0.473) shows that the internal variable in the regression model (intellectual capital) interprets (47.3%) of variations that happen in the (administrative development) at the **Middle Euphrates Technical University**.

5.3.3. Test the 2nd sub-hypothesis

H_{02} : There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for the intellectual capital in **support and the self-encouragement** at the General Directorate of the **Middle Euphrates Technical University**.

In order to test the validity of the 2nd sub-hypothesis was used the simple linear regression analysis. As shown in table (6) below:

Table 6. Results of simple linear regression analysis to measure the impact of the intellectual capital in Support and the self-encouragement

Independent Variable	Coefficients (β)	Std. Error	Value of (t)	Sig.
Constant (β_0)	0.989	0.234	4.219	0.000
Intellectual capital	0.729	0.061	11.886	0.000
Correlation Coefficient (R) = 0.768		Determination Coefficient (R ²) = 0.589		
Value of (F) = 141.286		Sig. of (F) = 0.000		

The results in table (6) show that:

- a. Validity of simple linear regression is proven, this is asserted by the calculated value (F) (141.286), and that the significance value (0.000) is less than the significance level ($\alpha = 0.05$).
- b. The statistical significant of regression coefficients (β) for the **intellectual capital** is proven, therefore, there exist statistically significant impact at the significant level ($\alpha = 0.05$) for the intellectual capital in **support and the self-encouragement** at the General Directorate of the **Middle Euphrates Technical University**.

Depend upon the (Sig.), and the value less than the significant level ($\alpha = 0.05$). This means that the null hypothesis (H_{02}) was **rejected** and (H_{12}) was **accepted**.

- c. The value of (R²) which is equal to (0.589) shows that the internal variable in the regression model (intellectual capital) interprets (58.9%) of variations that happen in (support and the self-encouragement) at the **Middle Euphrates Technical University**.

5.3.4. Test the 3rd sub-hypothesis

H₀₃: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for the intellectual capital in **empowering of the employees** at the **Middle Euphrates Technical University**.

In order to test the validity of the 3rd sub-hypothesis was used the simple linear regression analysis. As shown in table (7) below:

Table 7. Results of simple linear regression analysis to measure the impact of the intellectual capital in **empowering of the employees**

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Independent Variable	Coefficients (β)	Std. Error	Value of (t)	Sig.
Constant (β_0)	1.184	0.244	4.854	0.000
Intellectual capital	0.681	0.064	10.673	0.000
Correlation Coefficient (R) = 0.733		Determination Coefficient (R ²) = 0.538		
Value of (F) = 113.909		Sig. of (F) = 0.000		

The results in table (7) show that:

- a. Validity of simple linear regression is proven, this is asserted by the calculated value (F) (113.909), and that the significance value (0.000) is less than the significance level ($\alpha = 0.05$).
- b. The statistical significant of regression coefficients (β) for the **intellectual capital** is proven, therefore, there exist statistically significant impact at the significant level ($\alpha = 0.05$) for the intellectual capital in **empowering of the employees** at the **Middle Euphrates Technical University**. Depend upon the (Sig.), and the value less than the significant level ($\alpha = 0.05$). This means that the null hypothesis (H_{03}) was **rejected** and (H_{13}) was **accepted**.
- c. The value of (R^2) which is equal to (0.538) shows that the internal variable in the regression model (intellectual capital) interprets (53.8%) of variations that happen in (empowering of the employees) at the **Middle Euphrates Technical University**

6. CONCLUSIONS AND RECOMMENDATIONS

This section deals with the most important conclusions of the study, also included on the most important recommendations according to the results, which are as follows:

6.1. Conclusions

The study reached to a number of conclusions, among them the following:

- a. The evaluation of the employees for the intellectual capital and the Human Resources dimensions at the General Directorate of the Human Resources which are (Administrative development, support and the self-encouragement, and

empowering of employees) were the (high) degree for all the dimensions and the intellectual capital.

- b. There exist a statistically significant impact at the significance level ($\alpha = 0.05$), for the intellectual capital in development of the Human Resources dimensions together at the business organizations.
- c. There exist a statistically significant impact at the significance level ($\alpha = 0.05$), for the intellectual capital the **Middle Euphrates Technical University**.
- d. There exist a statistically significant impact at the significance level ($\alpha = 0.05$), for the intellectual capital in support and the self-encouragement at the **Middle Euphrates Technical University**.
- e. There exist a statistically significant impact at the significance level ($\alpha = 0.05$), for the intellectual capital in empowering of the employees at the **Middle Euphrates Technical University**.
- f. In order to maintain the organization status operating with the knowledge and then on an economy based on knowledge of states must be attention to all aspects related to the human resources development and ensuring good selection of the human elements and raise their efficiency and thus pour in raising the efficiency of the organization.
- g. The training and development during the service will create the opportunity for the trainee to acquire new knowledge and skills as well as it helps them acquire the positive trends and raises morale, and lead to improved the performance, and on the organization in return invested this earned value to upgrade the performance of employees.
- h. The polarization policy and choice is the task of the individuals management tasks are continuing administrative process that require the organization to determine their human resources needs to satisfy the physical and spiritual needs.

6.2. Recommendations

In light of the findings of the current study, the researcher recommended the following:

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- a. Maximum utilization of the intellectual capital in order to enhance its role in the development and raise the efficiency of the subject of research organization and their market value.
- b. Spread the spirit of the purposefulness and the work, motivation, and cooperation between workers and considered the worker as a source of thought and human capital and an important pillar for all processes and activities of the organization.
- c. On the organization implement the procedures and methods of selection of the individuals in all transparency, and this in turn leads to objectivity of the selection process.
- d. The human resource considered a real investment must be continuous work for the proper of his administration and development to achieve the organization objectives and improve its performance and increase its productivity.
- e. Work to support and encourage the intellectual capital, because it is a great wealth of knowledge and competitive advantage and enhances the creativity and innovation opportunities within the organization.
- f. Necessity of activating the appropriate rewards and incentives system to attract and localization of the workers in the business organizations and who have the scientific knowledge and the creative experiences.
- g. The study suggests conducting similar future studies aim to analyzing the impact of other factors of the **Middle Euphrates Technical University** at the business organizations, with the recommendation by using advanced statistical methods.

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